

REMARKS

Reconsideration of the present application as amended is respectfully requested. Claims 1 and 21 have been amended. Claim 41 has been canceled. Support for the amendments made to claims 1 and 21 may be found at at least page 22, line 3 to page 24, line 12 and page 28, line 11 to page 30, line 7 of the application as originally filed. Claims 1-40 are currently pending.

The disclosure stands objected to because it contains "an embedded hyperlink and/or other form of browser-executable code" in line 11 of page 20. Applicant has amended page 20, line 11 of the application to remove the phrase "at, e.g., [Http://www.bluetooth.com](http://www.bluetooth.com)".

Claims 1-41 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Regarding independent claims 1 and 21, the Office Action indicates that it is not believed that the limitation "wherein a size and a coding of said selected packet type are dependent upon one another" is supported by the specification. Applicant has amended independent claims 1 and 21 to remove this phrase. Regarding independent claim 41, the Office Action indicates that the limitation "minimizing a second parameter of said packet type, said second parameter related to either said noise quality measure or said interference quality measure, whichever is not indicative of said limiting factor" is not believed to be supported in the specification. Applicant has canceled independent claim 41. In view of the amendments made to independent claims 1 and 21, Applicant respectfully requests that the 35 U.S.C. 112, first paragraph rejections of claims 1-40 be withdrawn.

Claims 1-3, 8-11, 14, 16-17, 21-23, 28-31, 34, and 36-37 stand rejected under 35 U.S.C. 102(b) as being anticipated by "Improving Wireless LAN Performance Via Adaptive Local Error Control" by Eckhardt et al. ("Eckhardt"). Independent claim 1 has been amended to include the features of "determining from the estimated quality condition whether the channel is primarily noise limited or primarily interference limited" and "selecting a packet type to be transmitted over said channel based on the determination of whether the channel is primarily noise limited or primarily interference limited."

Section 6.3 of Eckhardt describes a bimodal adaptation error control policy in which maximally-sized packets are sent with no error coding when conditions are good, and minimally-

sized packets with nearly one third of each packet devoted to coding overhead are sent when conditions are poor. Applicant respectfully submits that Eckhardt fails to teach or suggest at least the distinguishing features of independent claim 1 of determining from an estimated quality condition whether a channel is primarily noise limited or primarily interference limited and selecting a packet type to be transmitted over the channel based on the determination of whether the channel is primarily noise limited or primarily interference limited. Applicant respectfully submits that independent claim 1 distinguishes over Eckhardt and respectfully requests that the 35 U.S.C. 102(b) rejection of independent claim 1 be withdrawn.

Independent claim 21 has been amended to include the features of "a channel condition processor coupled to said channel quality processor for estimating a quality condition of said channel based on said at least one quality measure and determining from the estimated quality condition whether the channel is primarily noise limited or primarily interference limited" and "a packet type selector coupled to the channel condition processor for selecting a packet type to be transmitted over said channel based on a determination of whether the channel is primarily noise limited or primarily interference limited." For similar reasons as those discussed with respect to independent claim 1, Applicant respectfully submits that Eckhardt fails to teach or suggest at least these features of independent claim 21. Applicant respectfully submits that independent claim 21 distinguishes over Eckhardt and requests that the 35 U.S.C. 102(b) rejection of independent claim 21 be withdrawn.

Claims 2-3, 8-11, 14, 16-17, 21-23, 28-31, 34, and 36-37 are dependent upon and include the features of their respective independent claims 1 and 21. As discussed with respect to independent claims 1 and 21, Eckhardt fails to teach at least the aforementioned distinguishing features of independent claims 1 and 21. For at least the reasons as discussed with respect to independent claims 1 and 21, Applicant respectfully submits that claims 2-3, 8-11, 14, 16-17, 21-23, 28-31, 34, and 36-37 also distinguish over Eckhardt and requests that the 35 U.S.C. 102(b) rejections of claims 2-3, 8-11, 14, 16-17, 21-23, 28-31, 34, and 36-37 be withdrawn.

Claims 1-2, 11-13, 21-22, and 31-33 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the Bluetooth Core Specification Version 1.0B ("Bluetooth 1.0B") in view of U.S. Patent No. 6,567,375 to Balachandran et al. ("Balachandran"). Section 3.19 on page 217 of

Bluetooth 1.0B describes automatically adjusting between DM (coded) or DH (uncoded) packets based upon channel quality. Applicant respectfully submits that Bluetooth 1.0B fails to teach or suggest at least the features of independent claim 1 of "determining from the estimated quality condition whether the channel is primarily noise limited or primarily interference limited" and "selecting a packet type to be transmitted over said channel based on the determination of whether the channel is primarily noise limited or primarily interference limited." Balachandran describes a method and apparatus for packet size dependent link adaptation for wireless packets. Column 6, lines 18-57 of Balachandran further describes selection of a modulation and coding scheme to be adapted to the underlying applications being used and the channel condition in order to reduce delay. Applicant respectfully submits that Balachandran fails to teach or suggest the aforementioned distinguishing features of independent claim 1. Applicant respectfully submits that independent claim 1 distinguishes over Bluetooth 1.0B in view of Balachandran and requests that the 35 U.S.C. 103(a) rejection of independent claim 1 be withdrawn.

For similar reasons as those discussed with respect to independent claim 1, Applicant respectfully submits that Eckhardt fails to teach or suggest at least the distinguishing features of independent claim 21 of "a channel condition processor coupled to said channel quality processor for estimating a quality condition of said channel based on said at least one quality measure and determining from the estimated quality condition whether the channel is primarily noise limited or primarily interference limited" and "a packet type selector coupled to the channel condition processor for selecting a packet type to be transmitted over said channel based on a determination of whether the channel is primarily noise limited or primarily interference limited." Applicant respectfully submits that independent claim 21 distinguishes over Bluetooth 1.0B in view of Balachandran and requests that the 35 U.S.C. 103(a) rejection of independent claim 21 be withdrawn.

Claims 2, 11-13, 22, and 31-33 are dependent upon and include the features of their respective independent claims 1 and 21. As discussed with respect to independent claims 1 and 21, Bluetooth 1.0B in view of Balachandran fails to teach the features of independent claims 1 and 21. For at least the reasons as discussed with respect to independent claims 1 and 21, Applicant respectfully submits that claims 2, 11-13, 22, and 31-33 also distinguish over

Bluetooth 1.0B in view of Balachandran and requests that the 35 U.S.C. 103(a) rejections of claims 2, 11-13, 22, and 31-33 be withdrawn.

Claims 4-5, 15, 24-25, and 35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Eckhardt. Claims 4-5, 15, 24-25, and 35 are dependent upon and include the features of independent claims 1 and 21. As discussed with respect to independent claims 1 and 21, Eckhardt fails to teach at least the aforementioned distinguishing features of independent claims 1 and 21. For similar reasons as discussed with respect to independent claims 1 and 21, Applicant respectfully submits that claims 4-5, 15, 24-25, and 35 also distinguish over Eckhardt and requests that the 35 U.S.C. 103(a) rejections of claims 4-5, 15, 24-25, and 35 be withdrawn.

Claims 6-7, 26-27, and 41 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Eckhardt in view of U.S. Patent No. 5,920,597 to Khayrallah et al. ("Khayrallah"). Claim 41 has been canceled, thereby rendering the rejection of claim 41 moot. Claims 6-7 and 26-27 are dependent upon and include the features of independent claims 1 and 21, respectively. As discussed with respect to independent claims 1 and 21, Eckhardt fails to teach or suggest at least the aforementioned distinguishing features of independent claims 1 and 21. Column 3, lines 57-61 of Khayrallah describes that "a noise-limited rather than a co-channel interference-limited situation justifies more error correction coding than a terrestrial cellular system, increasing the transmitted bit rate." Applicant respectfully submits that Khayrallah also fails to teach or suggest the aforementioned distinguishing features of independent claim 1.

In particular, Khayrallah fails to teach or suggest determining from an estimated quality condition whether a channel is primarily noise limited or primarily interference limited and selecting a packet type to be transmitted over the channel based on the determination of whether the channel is primarily noise limited or primarily interference limited. For similar reasons as those discussed with respect to independent claim 1, Applicant respectfully submits that Eckhardt in view of Khayrallah also fails to teach or suggest the aforementioned distinguishing features of independent claim 21. For at least the reasons as discussed with respect to independent claims 1 and 21, Applicant respectfully submits that claims 6-7 and 26-27 also distinguish over Eckhardt in view of Khayrallah and requests that the 35 U.S.C. 103(a) rejections of claims 6-7, 26-27, and 41 be withdrawn.

Claims 18-20 and 38-40 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Eckhardt in view of U.S. Patent No. 5,701,294 to Ward et al. ("Ward"). Claims 18-20 and 38-40 are dependent upon and include the features of independent claims 1 and 21. As discussed with respect to independent claims 1 and 21, Eckhardt fails to teach or suggest at least the aforementioned distinguishing features of independent claims 1 and 21. Column 8, lines 49-54 of Ward describes a control program that estimates a current radio channel quality (C/I) based on Bit Error Rate (BER) estimates and Signal Strength (SS) estimates. Column 5, lines 8-28 of Ward describes a graph of mobile station signal strength at a serving base station as a function of mobile station distance from a base station. Applicant respectfully submits that Ward also fails to teach or suggest the aforementioned distinguishing features of independent claims 1 and 21. For at least the reasons as discussed with respect to independent claims 1 and 21, Applicant respectfully submits that claims 18-20 and 38-40 also distinguish over Eckhardt in view of Ward and requests that the 35 U.S.C. 103(a) rejections of claims 18-20 and 38-40 be withdrawn.

In view of the above amendments, Applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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